Brochure

HP recommends Windows.

Inspiration without limits

HP Z Workstations Solutions

Spend more time creating and less time waiting. HP Z Workstations help you handle more, do more, and give you limitless creative possibilities. Packed with the newest industry-leading processing, graphics, and innovative technologies, HP Z Workstations provide the tools you need to handle the toughest workstreams.

HP recommends Windows.

Think Z

HP Z Workstations have been on the market for over 30 years. Designed from the inside out, HP Z Workstations deliver high performance and reliability with the latest innovations and industry-leading technologies. When you need to focus on your work, not your workstation—think Z.

Breakthrough industrial design

From the striking design of the HP Z1 to the sleek industrial styling of the tower models, to the thinner, lighter, business-rugged chassis of the HP ZBook Mobile Workstations, every HP Z Workstation combines stunning aesthetics with everyday practicality.

Tool-free customisation
Work isn't static. Expand your system capabilities with ease as your workflow demands grow over time. HP Z Workstations feature smart tool-less chassis, easy open access doors, and easy rack accessibility to make installing more memory, storage, and I/O options a breeze. Multiple slots and flexible storage bays allow you to install hard drives, SSDs, optical drives, RAID configurations, and more.

The quiet of HP Z Workstations
Great work requires inspiration and inspiration requires focus. HP Z Workstations' clean, modular interior layout maximises airflow—keeping processors and graphics cards running at optimum performance. HP Z Workstations also feature industry-leading acoustics technology, such as high-performance air cooling, so your concentration is never interrupted.

All day, all night reliability

Testing beyond industry standards
You put your workstations through the toughest trials—we do, too. HP Z Workstations, and the components that go into them, undergo rigorous 115,000 hours of testing in the **HP Total Test Process** and HP ZBooks are tested to MIL-STD 810G[2] standards. Extreme stress tests such as drops, vibration, temperature, shock, dust, and more ensure optimised performance.

HP relationships
Your work requires the best in processing and graphics performance, so HP works closely with vendors to ensure it. High-performance, multi-core Intel® Xeon® and Core™ processors[3] are tested and validated by Intel® and HP for your workstation-class applications to provide breakthrough performance in processing.

HP works with NVIDIA® and AMD to offer ISV-certified 2D through extreme 3D workstation graphics, including NVIDIA® Quadro® and AMD FirePro™.

Certification for every industry
HP works closely with Independent Software Vendor (ISV) developers to help ensure the most popular applications are thoroughly tested and certified to work on your HP Z Workstation. Whether you're working in media and entertainment or product development, finance or design, oil and gas, or geographic information systems, you can rely on these applications—known and trusted throughout your industry—to deliver rock solid reliability, every minute of every working day.

A long-term investment

Simplify your certification and support burdens and streamline large deployments with **HP Stable and Consistent Offerings**. Simply select your hardware and software components when you customise your HP Z Workstation and be assured that you'll be able to buy that same configuration throughout the lifecycle of the workstation, from product launch through retirement.

A leader in eco-labels

- HP is an industry leader in ENERGY STAR® certified products.
- EPEAT®[1] is a comprehensive environmental rating that helps identify greener computers and other electronic equipment. HP Z Workstations exceed industry requirements and were the first to achieve EPEAT Gold certification.

HP recommends Windows.

HP Innovations

Your job made easier

HP Z Workstations offer HP's maximum performance through unique HP technologies. Go beyond the basics to maximise your productivity, make IT management easy, and deliver a complete workstation experience.

HP Performance Advisor

Your trusted advisor

HP Performance Advisor[4] delivers a simple, effective way to keep your workstation operating at its peak potential. Like having an IT pro always on hand, this pre-installed software can take you from initial configuration and customisation through the optimisation of your system for each new application and driver you install.

For more information, visit hp.com/go/performanceadvisor

HP Remote Graphics Software

Go out and get inspired

From the factory floor to the boardroom, HP Remote Graphics Software (RGS)[5] delivers seamless remote access to workstation graphics. Preloaded on every HP Z Workstation, RGS automatically adjusts to network conditions while cutting required bandwidth. Collaborate on graphics projects in real time with multiple users simultaneously and from remote computers in almost any location. With advanced touch recognition features on HP RGS 7, you can easily do real work with workstation-class applications on your HP ZBook 14 or tablet.

For more information, visit hp.com/go/RGS

HP Z Turbo Drive

Shift into a higher gear

Experience ultra-fast storage speeds with the revolutionary HP Z Turbo Drive, an innovative PCIe-based SSD storage solution that reduces system bottlenecks, boot up, calculation, and graphics response times—even with 4K video.

For more information, visit hp.com/go/zturbo

HP DreamColor Technology

Dream in colour

Leave no detail uncovered with the brilliance of HP DreamColor technology.[6] Featuring a palette of over one billion colours, you'll get precise colour accuracy and consistent colour across your entire digital workflow.[7]

For more information, visit hp.com/go/dreamcolor

HP Z Workstation BIOS

Power up, bring costs down

Reduce power consumption and increase workstation reliability through the innovative HP Z Workstation BIOS featuring preset sleep states, adjustable fan speeds to maximise operating efficiency, and power management features.

For more information, visit hp.com/go/zworkstations

HP Client Management

Take control

Manage your workstation fleet with ease and lower your IT cost. HP Client Management portfolio lets you activate, configure, patch, and update your fleet from a single console.

For more information, visit hp.com/go/zworkstations

HP recommends Windows.

Get the right Z Workstation for you

Get the best Z Workstation for your application

So which is the right HP Z Workstation for your applications? Try our online workstations selection wizard to find out: hp.com/workstationfinder

"HP Z Workstations allow us to move in and out of all the different models, platforms, and engines we use to optimise built environments—and to communicate in real time. We can now speed innovation to market in ways our competition hasn't been able to do yet."

- Kurt Karnatz, President, Environmental Systems Design

Create your perfect match of flexibility, functionality, computational power and visualisation with HP's broad range of Z Workstations.

Z Desktops

Fuel your creative vision with a workstation tailored to your demands. HP knows different tasks require different tools and that's why we offer a complete family of HP Z Desktop Workstations with scalability and performance to tackle your most complex tasks.

Z All-In-One Workstation

Bring your ideas to life quickly with the elegant and innovative all-in-one HP Z1 Workstation. Loaded with the technologies you need to set your creativity loose.

ZBooks

When inspiration strikes, the HP ZBook is there. These superb mobile workstations offer a choice of screen size and are packed with incredible power to take on intensive projects.

Z Virtual Workstation

Unlock your organisation's potential with the HP Z Virtual Workstation. Enjoy a true workstation experience combined with end-to-end security and easily optimised IT management in a flexible 2u form factor. Experience superior graphics and performance that allows you to access certified workstation ISV applications on virtually any endpoint device—from virtually anywhere.

HP recommends Windows.

Work elegantly

Create brilliant projects with plenty of room to work on the elegant and innovative HP Z1 G2 All-in-One Workstation featuring a stunning touch optional 27-inch diagonal display.[6] The intuitive design of the HP Z1 allows for simple expansion, customisation and connectivity.

Ideal for architects, engineers, M&E professionals and more

HP Z1 Workstation

Spark creativity
Take computing performance to another level with the HP Z1 G2 featuring the latest Intel® processors and a wide range of professional 3D graphics from NVIDIA®. Connect in a flash and increase productivity with optional, easily accessible Thunderbolt™ 2 ports.[8] And see your ideas shine on the brilliant next generation IPS display or the optional 10-point touchscreen.

- Windows 8.1 Pro 64-bit and other editions available[9]
  Windows 7 Professional[9]
  Linux® Operating Systems
- Intel® Xeon® processor E3-1200 v3 series or 4th Generation Intel® Core™ i3/i5 processor[3] options
- 27" diagonal IPS display with 2560 x 1440 resolution; optional 10-point touchscreen[6]
- Optional Thunderbolt™ 2 ports[8] for up to 4x the bandwidth of USB 3.0
- Professional 3D NVIDIA® Quadro® graphics
- Dual cone, front-facing speakers with DTS Studio Sound™

Fuel your creative vision

HP knows different tasks require different tools and that's why we offer a complete family of HP Desktop Z Workstations with scalability and performance to tackle your most complex tasks.

A great solution for current PC users who need workstation performance and reliability at a PC-like price

HP Z230 Workstations

Get more power than a PC can deliver
The HP Z230 Workstation delivers reliable performance and scalability for your growing business needs—at PC-like prices. Designed for the demanding workloads of always on workstation applications, the Z230 Workstation is available in the impressively expandable compact Tower or the surprisingly capable Small Form Factor (SFF).

- Windows 8.1 Pro 64-bit and other editions available[9]
  Windows 7 Professional[9]
  Linux® Operating Systems
- Powered by the Intel® Xeon® processor E3-1200 series or Intel® Core™ i3/i5/i7 processor family[3]
- Optional Thunderbolt™ 2[8] technology for up to 4x the bandwidth of USB 3.0
- HP Z Turbo Drive PCIe SSD for double the performance of SATA SSDs
- Wide selection of professional graphics from NVIDIA®, AMD, and Intel®
- Wide array of USB ports and storage options let you expand
- 92% efficient power supplies standard and available ENERGY STAR® 6.0 configurations

All feature are not available in all countries.

HP recommends Windows.

Well suited for engineers, architects and creative professionals who use graphics-intensive applications

HP Z440 Workstation

Expand your power
Take your business to the next level of performance, expandability, and no compromise reliability in one complete package. The HP Z440 Workstation, with its sleek 4U form factor, tool-less design, and built-in handles, makes it simple to expand even in a racked data center environment.

- Windows 8.1 Pro 64-bit and other editions available[9]
  Windows 7 Professional[9]
  Linux® Operating Systems
- Choice of Intel® Xeon® processor E5-1600 v3 and E5-2600 v3 families[3] supporting up to 8 cores of processing power
- Up to 128 GB DDR4-2133 MHz Registered ECC memory[10,11] (with 16 GB DIMMs)
- Optional Thunderbolt™ 2[8] technology for up to 4x the bandwidth of USB 3.0
- Fusion-io® (ioFX®) option for extreme storage performance[6]
- HP Z Turbo Drive PCIe SSD for double the performance of SATA SSDs
- Support for up to eight displays at peak HD resolutions[12] for maximum viewing area

Ideal solution for environments where space is at a premium, including financial services, engineering and construction

HP Z640 Workstation

Expand your capabilities
Build the perfect workstation for your needs. Configure and reconfigure with ease on the HP Z640 Workstation. With up to 36 discrete processing cores, the dual-socket system packs massive computing power into a whisper-quiet compact design.

- Windows 8.1 Pro 64-bit and other editions available[9]
  Windows 7 Professional[9]
  Linux® Operating Systems
- Choice of Intel® Xeon® processor E5-2600 v3 and E5-1600 v3 families[3]
- Support for 145 W processors powering up to 36 cores in a dual processor configuration.[3]
- Optional Thunderbolt™ 2[8] technology for up to 4x the bandwidth of USB 3.0
- Up to 256 GB DDR4-2133 MHz Registered ECC memory[10,11]
- Fusion-io® (ioFX®) option for extreme storage performance[6]
- Five high-speed PCIe slots enable greater data throughput to multiple I/O devices
- HP Z Turbo Drive PCIe SSD for double the performance of SATA SSDs
- Up to 2x high-end 3D graphics cards supported, driving up to four displays for advanced 3D applications
- Up to 4x 2D graphics cards supported, driving up to 8 displays[12] for user environments with stacked displays

All feature are not available in all countries.

HP recommends Windows.

For workstation tasks requiring maximum computing, graphics, memory, storage and I/O, such as simulation, computer-aided engineering, entertainment, and financial services

HP Z840 Workstation

Take on the hardest projects
Push your computing boundaries with the HP Z840 Workstation that helps you keep up with your biggest projects. Built for high-end computing and visualisation, it delivers outstanding performance in one of the industry's most expandable chassis.

- Windows 8.1 Pro 64-bit and other editions available[9]
  Windows 7 Professional[9]
  Linux® Operating Systems
- Powered by Intel® Xeon® processor E5-2600 v3 family[3]
- Up to 512 GB DDR4-2133 MHz Registered ECC memory[10,11]
- High density storage: configure up to 10 internal SFF drives for performance, capacity, and security
- Optional Thunderbolt™ 2[8] technology for up to 4x the bandwidth of USB 3.0
- Seven high-speed PCIe slots enable greater data throughput to multiple I/O devices
- Fusion-io® (ioFX®) option for extreme storage performance[6]
- HP Z Turbo Drive PCIe SSD for double the performance of SATA SSDs
- Highest-performing GPU computing solutions available in the Z family
- Easy access to customise and maintain system components with a tool-less and visually cable-free chassis

Create anywhere

When inspiration strikes, the HP ZBook is there. These superb mobile workstations offer a choice of screen size and are packed with incredible power to take on intensive projects.

HP's thinnest and lightest workstation Ultrabook™[13]

HP ZBook 14 Mobile Workstation

Capture your inspiration wherever you go
Create anywhere using HP's thinnest and lightest ZBook workstation Ultrabook™[13] in a 14" diagonal screen size. The HP ZBook 14 G2 delivers impressive professional 3D graphics and outstanding performance even from the most demanding applications. All in all, an unprecedented sleek and reliable design.

- Windows 8.1 Pro 64-bit and other editions available[9]
  Windows 7 Professional[9]
  Ubuntu Linux®[14]
  FreeDOS
- Choice of 5th generation Intel® Core™ i5 and i7 processors[3]
- 14.0" (35.6 cm) diagonal display and 3.77 lbs (1.71 kg) for easy mobility
- Workstation-caliber AMD FirePro™ discrete graphics and AMD Enduro™ Technology
- Up to 1.25 TB of max storage[10]
- Up to two DDR3L SODIMMs supporting up to 16 GB[11] of memory
- HP Z Turbo Drive (PCIe SSD) for incredibly fast storage speeds
- Intuitive 10-point multi-touch screen[6] option
- Optional secondary battery support[6]

All feature are not available in all countries.

HP recommends Windows.

HP's thinnest 15-inch diagonal mobile workstation

HP ZBook 15u Mobile Workstation

Create anywhere and deliver your best work, using the thin and light 15 inch-diagonal workstation Ultrabook™[13] with impressive 3D graphics on a 15.6" diagonal screen designed to handle intense workloads. Take powerful computing where you need to work. The HP ZBook 15u G2 Mobile Workstation's innovative sleek design is impressive on the road, at client sites, and satellite offices. This workstation Ultrabook™[13] has redefined mobile computing.

- Windows 8.1 Pro 64-bit and other editions available[9]
  Windows 7 Professional[9]
  Ubuntu Linux®[14]
  FreeDOS
- Choice of 5th generation Intel® Core™ i5 and i7 processors[3]
- 15.6" (39.62 cm) diagonal display and 4.23 lbs (1.92 kg) for easy mobility
- Workstation-caliber AMD FirePro™ discrete graphics and AMD Enduro™ Technology
- Up to 1.25 TB of max storage[10]
- Up to two DDR3L SODIMMs supporting up to 16 GB[11] of memory
- HP Z Turbo Drive (PCIe SSD) for incredibly fast storage speeds
- Optional secondary battery support[6]

HP's most versatile mobile workstation

HP ZBook 15 Mobile Workstation

Perform on the go
Work anywhere and be confident the power you need is at your fingertips. Take advantage of the HP ZBook 15 G2's powerful processing and graphics, simple scalability, and blazing-fast connectivity to perform and collaborate at the speed of creativity.

- Windows 8.1 Pro 64-bit and other editions available[9]
  Windows 7 Professional[9]
  Ubuntu Linux®[14]
- Dual- and quad-core 4th generation refresh Intel® Core™ i5 and i7 processors[3]
- 15.6" (39.6 cm) diagonal display in your choice of FHD or QHD+ resolutions[15]
- Drive up to five displays with NVIDIA® graphics[16]
- Support for NVIDIA® Optimus® and AMD Enduro™ Technology
- Up to 2.25 TB of max storage[10]
- Up to four SODIMMS supporting up to 32 GB[11] of memory
- Thunderbolt™ 2[8] technology for up to 4x the bandwidth of USB 3.0
- HP Z Turbo Drive (PCIe SSD) for incredibly fast storage speeds
- Tool-less hard drive release via green touch point
- Two secondary external battery options[6]
- Common docking station options

All feature are not available in all countries.

HP recommends Windows.

HP's most powerful mobile workstation

HP ZBook 17 Mobile Workstation

Expand your creative capabilities
On the go creativity knows no limits with a vivid 17.3" diagonal HP ZBook 17 G2. Showcase your best work in the office or on the go and take advantage of HP's most powerful processing, graphics, simple scalability, and blazing-fast connectivity to perform and collaborate at the speed of creativity.

- Windows 8.1 Pro 64-bit and other editions available[9]
  Windows 7 Professional[9]
  Ubuntu Linux®[14]
- Dual- and quad-core 4th generation refresh Intel® Core™ i5 and i7 processors[3]
- 17.3" (43.9 cm) diagonal display in your choice of HD+, FHD resolutions[15] or HP DreamColor panel[6]
- Drive up to five displays with NVIDIA® graphics[16]
- Up to 3.25 TB of max storage[10]
- Up to 32 GB[11] of memory
- HP Z Turbo Drive (PCIe SSD) for incredibly fast storage speeds
- Support for NVIDIA® Optimus®[17] and AMD Enduro™ Technology
- Thunderbolt™ 2[8] technology for up to 4x the bandwidth of USB 3.0
- Tool-less hard drive release via green touch point
- Two secondary external battery options[6]
- Common docking station options

Virtually unstoppable

HP DL380z Virtual Workstation

Unlock your organisation's potential with the HP DL380z Gen9 Virtual Workstation. Enjoy a true workstation experience combined with end-to-end security and easily optimised IT management in a flexible 2U form factor. Experience superb graphics and access certified workstation ISV applications on virtually any endpoint device—from virtually anywhere.

- Windows and Linux® Client OS
- Dual Intel® Xeon® Processor E5 v3 Family[1] up to 3.5 GHz, up to 18 cores[3]
- 24 DIMM slots for up to 1.5 TB* of DDR4 2133 MHz memory[10]
- Choose NVIDIA GRID™ or NVIDIA® Quadro® graphics cards
- High-density storage, up to (10) 2.5" storage drives** for up to 16 TB of storage[10]
- Six high-speed PCIe Gen3[18] slots enable greater data throughput to multiple I/O devices (including storage) providing greater total-system performance
- Small 93%/96% FlexSlot dual power supplies (800W/1400W)
- Integrated 10-port SATA RAID; Available 12G SAS
- iLO (Integrated Lights Out) remote management allows IT to remotely manage every aspect of the system from anywhere in the world

*3 TB memory planned availability late 2015

**With optional 2 SFF front cage

All feature are not available in all countries.

HP recommends Windows.

Expand your horizons

Design your workspace with HP DreamColor and HP Z Displays to create a whole world view. Choose to connect multiple displays[12] and you're on your way to expanded productivity.

HP Z Displays

Say hello to your power-smart IPS Gen 2 team players
Get outstanding image accuracy, exceptional adjustability, and mission-critical reliability optimised for commercial environments. Built with IPS Gen 2 panels, HP Z Displays deliver power savings over first-generation IPS technology and extra-wide viewing angles that foster collaboration.

HP Z22i 21.5-inch, HP Z23i 23-inch, and HP Z24i 24-inch IPS Displays

- Choose a 21.5-inch or 23-inch diagonal display with 1920 x 1080 resolution or the 24-inch diagonal display with 1920 x 1200 resolution and 2.3 M pixels
- Legacy connectivity from a range of inputs that include DisplayPort 1.2, DVI, VGA, and an integrated USB hub

HP Z27i 27-inch IPS Display

- 27-inch diagonal display with narrow bezels and a high resolution of 2560 x 1440 and 3.7 M pixels for enhanced productivity
- Connectivity from a range of inputs that include DisplayPort 1.2, DVI, VGA, HDMI 1.4, audio output for an HP Speaker Bar,[6] and four USB 3.0 ports with speeds up to 10x faster than USB 2.0

HP Z30i 30-inch IPS Display

- 30-inch diagonal display with narrow bezels and an ultra-high resolution of 2560 x 1600 that provides 4.1 M pixels of ultimate visual power
- Crisp, clear presentation from 350 cd/m^2 brightness, 1000:1 contrast ratio, 5 M:1 dynamic contrast ratio, and 8 ms response time[7]

HP Z27s 27-inch IPS UHD Display

It's time to meet your 4K[19] business display
Join the Ultra High Definition movement and expand your visual workspace with the HP Z27s 27-inch IPS UHD Display, which delivers an extra-large screen with UHD/4K[19] presentation and flexible connectivity and comfort features.

- Enjoy massive 3840 x 2160 resolution,[27] sRGB colour gamut, and 1.07 billion colours[7] for incredible colour presentation of highly-detailed digital workflows. Wide viewing angles keep the line of sight open for one or many viewers.
- Connect your display to a workstation, PC, and range of digital video devices with DisplayPort, mini-DisplayPort, HDMI, and four USB 3.0 ports. Use the two side-located USB ports for easy access to your most-used peripherals.

All feature are not available in all countries.

Gold-standard colour-critical displays

HP DreamColor Z24x Professional Display

Turn on your creativity with a premium display
Enjoy pure, consistent 10-bit colour accuracy from design to production with push-button colour space selection and easy colour calibration. The 24-inch diagonal DreamColor panel produces up to 1.07 billion colours from a massive colour gamut covering 99% of Adobe® RGB.

- Pro-class colour quality with 100% coverage of sRGB, BT.709 and 99% of Adobe RGB. Crisp and clear from 1000:1 contrast ratio[7] and high brightness on a 1920 x 1200 resolution wide-angle IPS panel.
- Create your own custom colour space and calibrate any of the five colour space presets—sRGB, Adobe RGB, BT.709, User and Native—with the optional HP DreamColor Calibration Solution.[6]

HP DreamColor Z27x Professional Display

Astonishing performance for the colour professional
Work in brilliant, trusted colour and bring your ideas to life with the HP DreamColor Z27x Professional Display, featuring HP's unrivaled integrated calibration engine, 4K[19] input support, and 10-bit colour that drives up to 1.07 billion onscreen colours.

- Consistently deliver rich, accurate colours and ultra-deep blacks with HP's custom-engineered 27-inch diagonal DreamColor panel. Get massive 2560 x 1440 resolution and crisp, clear presentation from 1000:1 typical, 800:1 minimum contrast ratio and high brightness.[7]
- Experience up to 1.07 billion colours with 1,024 tones per channel as the HP DreamColor Engine[7] powers through your 4K content[19] with 10-bit colour accuracy and easily handles today's most demanding professional workflows.

Extended Services

Your HP Z Workstation experience doesn't end at the time of purchase, so why should our support? HP's Warranty along with a range of optional services ensures you have the right support at the right time.

HP Warranty
Every HP Z Workstation comes with a standard 3-3-3 limited warranty (three years parts, three years labor and three years next business day[20] onsite support). You may also benefit from account management and premium call center support.

HP Total Care
Behind every HP Z Workstation there's a whole infrastructure of service and support packages designed to ensure that you get maximum value and benefit over the full life of your product.

For more information, please visit: hp.com/go/totalcare

HP Care Pack Services[20]
Choose to expand upon your standard, limited warranty by taking advantage of our optional HP Care Pack Services, and you have the reassurance of knowing that whatever's around the next corner, you're covered.

For more information, please visit: hp.com/go/cpc

All feature are not available in all countries.

HP recommends Windows.

HP Z Workstations quick reference guide

	HP Z1 G2	HP Z230 SFF	HP Z230 Tower
Operating systems	Windows 8.1 Pro 64-bit[9] Windows 7 Professional 64-bit (available through downgrade rights from Windows 8.1 Pro 64-bit)[9] Windows 7 Professional (MSNA) 64-bit[9] HP Installer Kit for Linux® (includes drivers for 64-bit OS versions of RHEL 5 & 6 and SUSE Linux® Enterprise Desktop 11) Red Hat® Enterprise Linux® Desktop (Paper license with 1 year support; no preinstalled OS)	Windows 8.1 Pro 64-bit[9] Windows 7 Professional 64-bit (available through downgrade rights from Windows 8.1 Pro 64-bit)[9] Windows 7 Professional (MSNA) 64-bit[9] HP Installer Kit for Linux® (includes drivers for 64-bit OS versions of RHEL 5 & 6 and SUSE Linux® Enterprise Desktop 11) Red Hat® Enterprise Linux® Desktop (Paper license with 1 year support; no preinstalled OS)	Windows 8.1 Pro 64-bit[9] Windows 7 Professional 64-bit (available through downgrade rights from Windows 8.1 Pro 64-bit)[9] Windows 7 Professional (MSNA) 64-bit[9] HP Installer Kit for Linux® (includes drivers for 64-bit OS versions of RHEL 5 & 6 and SUSE Linux® Enterprise Desktop 11) Red Hat® Enterprise Linux® Desktop (Paper license with 1 year support; no preinstalled OS)
Processor/chipset	Intel® Xeon® Processor E3-1200 v3 series[3] 4th Generation Intel® Core™ i3, i5 Processors[3] Intel® C226 Chipset	Intel® Xeon® Processor E3-1200v3 series[3] Intel® Core™ i3/i5/i7 processor family[3] Intel® C226 Chipset Intel® Pentium® G3220 processor[3]	Intel® Xeon® Processor E3-1200v3 series[3] Intel® Core™ i3/i5/i7 processor family[3] Intel® C226 Chipset
Slots available/maximum memory/number of memory channels[21]	4 DIMM slots, up to 32 GB DDR3 ECC 1866 MHz/16 GB DDR3 nECC 1866 MHz 2 channels per CPU	4 DIMM slots, up to 32 GB ECC/non-ECC, DDR3 1600 MHz (ECC/non-ECC choice and actual memory speed dependent on processor capability)	4 DIMM slots, up to 32 GB ECC/non-ECC, DDR3 1600 MHz (ECC/non-ECC choice and actual memory speed dependent on processor capability)
Expansion slots	1 MXM 3.1 (dedicated for graphics) 2 miniPCIe/mSATA (full-length) Optional Thunderbolt™ 2[8] via PCIe Card	1 PCIe Gen3 x16 1 PCIe Gen2 x4 slot/x16 connector 1 PCIe Gen2 x1 slot/x4 connector 1 PCIe Gen2 x1 slot All slots are Low Profile Optional Thunderbolt™ 2[8] via PCIe Card	1 PCIe Gen3 x16 1 PCIe Gen2 x4 slot/x16 connector 1 PCIe Gen2 x1 slot/x4 connector 1 PCIe Gen2 x1 slot 1 PCI 32-bit Optional Thunderbolt™ 2[8] via PCIe Card
Graphics	Intel® HD Graphics 4400 and 4600 (Intel® Core™ i3 and i5 Processors) Intel® HD Graphics P4600 (Intel® Xeon® E3-12x5v3 Processors) NVIDIA® Quadro® K610M NVIDIA® Quadro® K2100M NVIDIA® Quadro® K3100M NVIDIA® Quadro® K4100M	Intel® HD Graphics available on select processors NVIDIA® NVS™ 310 NVIDIA® NVS™ 315 NVIDIA® NVS™ 510 AMD FirePro™ V3900 NVIDIA® Quadro® 410 NVIDIA® Quadro® K600	Intel® HD Graphics available on select processors NVIDIA® NVS™ 310 NVIDIA® NVS™ 315 NVIDIA® NVS™ 510 AMD FirePro™ V3900 NVIDIA® Quadro® 410 NVIDIA® Quadro® K600 NVIDIA® Quadro® K2000 AMD FirePro™ W7000 (AMO only)* NVIDIA® Quadro® K4000
Maximum supported displays[28]	One external display via display port	6 displays	6 displays
Controllers and HDDs[10,22]	Integrated SATA Controller, RAID 0,1 supported: 3 ports, 6 Gb/s Up to (1) 3.5-inch 7200 rpm SATA drives: 500 GB, 1, 2, 3 TB Up to (2) 2.5-inch 10K rpm SATA drives: 250, 500 GB, 1 TB (2 TB max) Up to (2) 2.5-inch SATA SDD drives: 128, 180, 240, 256, 480, 512 GB, 1 TB (2 TB max) Up to (1) mSATA SDD drives: 256 GB Up to (1) 2.5-inch SATA self-encrypting boot drive (SED): 180 GB Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD) drives, 256 GB	Integrated SATA Controller, RAID 0,1 supported: 5 ports, 6 Gb/s Up to (2) 3.5-inch 7200 rpm SATA drives: 500 GB, 1, 2 or 3 TB (6 TB max) Up to (2) 2.5-inch 10K rpm SATA drives: 250, 500 GB, 1 TB (2 TB max) Up to (2) 2.5-inch SATA SSD drives: 128, 180, 240, 256, 480, 512 GB (1 TB max) Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting 7200 rpm boot drive (SED): 180, 500 GB, 500 GB max Optional (1) 64 GB SSD Disk Cache Module can be used in conjunction with up to (2) SATA HDDs in RAID 0/RAID 1 using Intel® Smart Response Technology. Up to (1) HP Z Turbo Drive PCIe SSD: 256, 512 GB Up to (1) mSATA SDD drives: 256 GB	Integrated SATA Controller, RAID 0,1 supported: 5 ports, 6 Gb/s Up to (3) 3.5-inch 7200 rpm SATA drives: 500 GB, 1, 2 or 3 TB (9 TB max) Up to (3) 2.5-inch 10K rpm SATA drives: 250, 500 GB, 1 TB (3 TB max) Up to (3) 2.5-inch SATA SSD drives: 128, 180, 240, 256, 480, 512 GB (1 TB max) Up to (1) 2.5-inch SATA self-encrypting solid state boot drive (SED SSD): 256 GB, 256 GB max Up to (1) 2.5-inch SATA self-encrypting 7200 rpm HDD (SED HDD): 180, 500 GB, 500 GB max Optional (1) 64 GB SSD Disk Cache Module can be used in conjunction with up to (2) SATA HDDs in RAID 0/RAID 1 using Intel® Smart Response Technology. Up to (1) HP Z Turbo Drive PCIe SSD: 256, 512 GB
Optical drives[23,24]	DVD-ROM slim tray load DVD+/-RW DL Super Multi slim tray load HP Blu-ray Writer slim tray load 1 SD 4.0 Media Card Reader	DVD-ROM DVD+/-RW DL Super Multi HP Blu-ray Writer HP 15-in-1 Media Card Reader	DVD-ROM DVD+/-RW DL Super Multi HP Blu-ray Writer HP 15-in-1 Media Card Reader
Communications	Intel I217LM Network Connection (Intel® vPro™ with Intel® AMT 9.0) Integrated Intel dual-band AC 7260 802.11ac Wireless LAN & Bluetooth 4 Combo Card	Intel I217LM Network Connection (Intel® vPro™ with Intel® AMT 9.0) Optional Intel® GbE NIC WLAN Intel® 7260 802.11 a/b/g/n PCIe x 1 NIC	Intel® I217LM Network Connection (Intel® vPro™ with Intel® AMT 9.0) Optional Intel® GbE NIC WLAN Intel® 7260 802.11 a/b/g/n PCIe x 1 NIC

All feature are not available in all countries.

HP recommends Windows.

	HP Z440	HP Z640	HP Z840
Operating systems	Windows 8.1 Pro 64-bit[9] Windows 7 Professional 64-bit (available through downgrade rights from Windows 8.1 Pro 64-bit)[9] Windows 7 Professional (MSNA) 64-bit[9] HP Installer Kit for Linux® (includes drivers for 64-bit OS versions of RHEL 5 & 6 and SUSE Linux® Enterprise Desktop 11) Red Hat® Enterprise Linux® Desktop (Paper license with 1 year support; no preinstalled OS)	Windows 8.1 Pro 64-bit[9] Windows 7 Professional 64-bit (available through downgrade rights from Windows 8.1 Pro 64-bit)[9] Windows 7 Professional (MSNA) 64-bit[9] HP Installer Kit for Linux® (includes drivers for 64-bit OS versions of RHEL 5 & 6 and SUSE Linux® Enterprise Desktop 11) Red Hat® Enterprise Linux® Desktop (Paper license with 1 year support; no preinstalled OS)	Windows 8.1 Pro 64-bit[9] Windows 7 Professional 64-bit (available through downgrade rights from Windows 8.1 Pro 64-bit)[9] Windows 7 Professional (MSNA) 64-bit[9] HP Installer Kit for Linux® (includes drivers for 64-bit OS versions of RHEL 5 & 6 and SUSE Linux® Enterprise Desktop 11) Red Hat® Enterprise Linux® Desktop (Paper license with 1 year support; no preinstalled OS)
Processor/chipset	Intel® Xeon® Processor E5-1600v3 series[3] Intel® Xeon® Processor E5-2600v3 series[3] Intel® C612 Chipset	Intel® Xeon® Processor E5-1600v3 series[3] Intel® Xeon® Processor E5-2600v3 series[3] Intel® C612 Chipset	Intel® Xeon® Processor E5-2600v3 series[3] Intel® C612 Chipset
Slots available/maximum memory/number of memory channels[21]	8 DIMM slots; Up to 128 GB DDR4-2133 MHz Registered ECC (w/16 GB DIMMs)	Up to 8 DIMM slots with 2 CPUs, up to 256 GB DDR4-2133 MHz Registered ECC (w/32 GB DIMMs)	16 DIMM slots, up to 512 GB DDR4-2133 MHz Registered ECC
Expansion slots	2 PCIe Gen3 x16 1 PCIe Gen3 x8 (open-ended connector) 1 PCIe Gen2 x4 (open-ended connector) 1 PCIe Gen2 x1 (open-ended connector) 1 PCI 32-bit/33 MHz (legacy) Optional Thunderbolt™ 2[8] via PCIe Card	2 PCIe Gen3 x16 1 PCIe Gen3 x8 (open-ended connector) 1 PCIe Gen2 x8 (x4 elec.; open-ended connector) 1 PCIe Gen2 x4 (x1 elec.; open-ended connector) – not available with riser installed 1 Legacy PCI Optional Thunderbolt™ 2[8] via PCIe Card	3 PCIe Gen3 x16 2 PCIe Gen3 x8 (x16 mechanically) 1 PCIe Gen3 x4 (x8 mechanically) 1 PCIe Gen2 x4 (x8 mechanically Optional Thunderbolt™ 2[8] via PCIe Card
Graphics	NVIDIA® NVS™ 310 NVIDIA® NVS™ 315 NVIDIA® NVS™ 510 NVIDIA® Quadro® K420 NVIDIA® Quadro® K620 AMD FirePro™ W2100 NVIDIA® Quadro® K2200 NVIDIA® Quadro® K4200 AMD FirePro™ W5100 AMD FirePro™ W7100 NVIDIA® Quadro® K5200 NVIDIA® Quadro® K6000 NVIDIA® Tesla® K40	NVIDIA® NVS™ 310 NVIDIA® NVS™ 315 NVIDIA® NVS™ 510 NVIDIA® Quadro® K420 NVIDIA® Quadro® K620 AMD FirePro™ W2100 NVIDIA® Quadro® K2200 NVIDIA® Quadro® K4200 AMD FirePro™ W5100 AMD FirePro™ W7100 NVIDIA® Quadro® 5200 NVIDIA® Quadro® 6000 NVIDIA® Tesla® K40	NVIDIA® NVS™ 310 NVIDIA® NVS™ 315 NVIDIA® NVS™ 510 NVIDIA® Quadro® K420 NVIDIA® Quadro® K620 AMD FirePro™ W2100 NVIDIA® Quadro® K2200 NVIDIA® Quadro® K4200 AMD FirePro™ W5100 AMD FirePro™ W7100 NVIDIA® Quadro® K5200 NVIDIA® Quadro® K6000 NVIDIA® Tesla® K40
Maximum supported displays[28]	8 displays	8 displays	12 displays
Controllers and HDDs[10,22]	Integrated SATA Controller, RAID 0,1,10 supported: 6 ports, 6 Gb/s Up to (4) 3.5-inch 15K rpm SAS drives: 300, 600 GB, 2.4 TB max Up to (4) 2.5-inch 10K rpm SAS drives: 300, 600 GB, 1.2 TB, 4.8 TB max Up to (4) 3.5-inch 7200 rpm SATA drives: 500 GB, 1, 2, 3, 4 TB, 16 TB max Up to (1) 2.5-inch SATA Self-Encrypting Drive (SED): 500 GB Opal 1 Up to (4) 2.5-inch 6 Gb/s SATA Solid State Drives: 128, 256, 512 GB, 1 TB, 4 TB max Up to (1) 2.5-inch 6 Gb/s SATA Self-Encrypting Solid State Drive (SED SSD): 256 GB Opal 2 Up to (4) 2.5-inch Intel® Pro 1500 6 Gb/s SATA Solid State Drive: 180 GB, 720 GB max Up to (4) 2.5-inch Samsung Enterprise 6 Gb/s SATA Solid State Drives: 240, 480 GB, 1.9 TB max Up to (2) PCIe SSD HP Z Turbo Drives: 256 GB, 512 GB, 1 TB max Fusion ioFX 410 GB PCIe Accelerator Note: Fourth 3.5-inch drive occupies one external 5.25-inch bay.	Integrated SATA Controller, RAID 0,1,10 supported: 6 ports, 6 Gb/s Up to (4) 3.5-inch 15K rpm SAS drives: 300, 600 GB, 2.4 TB max Up to (4) 2.5-inch 10K rpm SAS drives: 300, 600 GB, 1.2 TB, 4.8 TB max Up to (4) 3.5-inch 7200 rpm SATA drives: 500 GB, 1, 2, 3, 4 TB, 16 TB max Up to (1) 2.5-inch SATA Self-Encrypting Drive (SED): 500 GB Opal 1 Up to (4) 2.5-inch 6 Gb/s SATA Solid State Drives: 128, 256, 512 GB, 1 TB, 4 TB max Up to (1) 2.5-inch 6 Gb/s SATA Self-Encrypting Solid State Drive (SED SSD): 256 GB Opal 2 Up to (4) 2.5-inch Intel® Pro 1500 6 Gb/s SATA Solid State Drive: 180 GB, 720 GB max Up to (4) 2.5-inch Samsung Enterprise 6 Gb/s SATA Solid State Drives: 240, 480 GB, 1.9 TB max Up to (2) PCIe SSD HP Z Turbo Drives: 256 GB, 512 GB, 1 TB max Fusion ioFX 410 GB PCIe Accelerator Note: Fourth drive occupies one external 5.25-inch bay	Integrated SATA Controller, RAID 0,1,10 supported: 6 ports, 6 Gb/s Integrated SAS controller, RAID 0,1,10 supported: 8 ports 6 Gb/s Up to (5) 3.5-inch 6 Gb/s 15k rpm SAS HDD: 300, 600 GB Up to (5) 3.5-inch 10k rpm SAS SFF HDD: 300, 600 GB, 1.2 TB max Up to (6) 3.5-inch 6 Gb/s 7200 rpm SATA HDD: 500 GB, 1, 2 TB, 3 TB max Up to (6) 2.5-inch 6 Gb/s SATA SSD: 128, 256, 512 GB, 1 TB max Up to (2) Samsung Enterprise SATA SSD: 240, 480 GB Up to (1) 1500 SATA SSD: 180 GB Up to (2) PCIe SSD HP Z Turbo Drives, 256 GB, 512 GB, 1 TB max Fusion ioFX 410 GB PCIe Accelerator
Optical drives[23,24]	HP DX115 Removable HDD Frame/Carrier HP 9.5 mm Slim SuperMulti DVD Writer HP 9.5 mm Slim DVD-ROM Drive HP 9.5 mm Slim BDXL Blu-ray Writer HP 15-in-1 Media Card Reader	HP DX115 Removable HDD Frame/Carrier HP 9.5 mm Slim SuperMulti DVD Writer HP 9.5 mm Slim DVD-ROM Drive HP 9.5 mm Slim BDXL Blu-ray Writer HP 15-in-1 Media Card Reader	HP DX115 Removable HDD Frame/Carrier HP 9.5 mm Slim SuperMulti DVD Writer HP 9.5 mm Slim DVD-ROM Drive HP 9.5 mm Slim BDXL Blu-ray Writer HP 15-in-1 Media Card Reader
Communications	Integrated Intel® I218LM PCIe GbE Controller Intel® Ethernet I210-T1 PCIe NIC HP X520 10GbE Dual Port Adapter HP 10GbE SFP+ SR Transceiver HP 361T PCIe Dual Port Gigabit NIC Intel® 7260 802.11 a/b/g/n PCIe WLAN NIC	Integrated Intel® I218LM PCIe GbE Controller Intel® Ethernet I210-T1 PCIe NIC HP X520 10 GbE Dual Port Adapter HP 10 GbE SFP+ SR Transceiver HP 361T PCIe Dual Port Gigabit NIC Intel® 7260 802.11 a/b/g/n PCIe WLAN NIC	HP X520 10 GbE Dual Port Adapter HP 10 GbE SFP+ SR Transceiver Intel® Ethernet I210-T1 PCIe NIC Intel® 7260 802.11 a/b/g/n PCIe WLAN NIC Integrated Intel® I210AT PCIe GbE Controller Integrated Intel® I218LM PCIe GbE Controller HP 361T PCIe Dual Port Gigabit NIC

All feature are not available in all countries.

HP recommends Windows.

HP Z Workstations quick reference guide

	HP ZBook 14 G2	HP ZBook 15u G2
Operating systems	Windows 8.1 Pro 64-bit and other editions available[9] Windows 7 Professional[9] Ubuntu Linux®[14] FreeDOS	Windows 8.1 Pro 64-bit and other editions available[9] Windows 7 Professional[9] Ubuntu Linux®[14] FreeDOS
Processor/chipset	Dual-core 5th generation Intel® Core™ i5 and i7 processors[3] Chipset is integrated with processor	Dual-core 5th generation Intel® Core™ i5 and i7 processors[3] Chipset is integrated with processor
Slots available/maximum memory/number of memory channels[21]	DDR3L SDRAM, 1600 MHz, 2 SODIMMs, up to 16 GB	DDR3L SDRAM, 1600 MHz, 2 SODIMMs, up to 16 GB
Expansion slots	1 Secure Digital 1 Smart Card Reader	1 Secure Digital 1 Smart Card Reader
Graphics	AMD FirePro™ M4150 (1 GB dedicated GDDR5) AMD Enduro™ Technology	AMD FirePro™ M4170 (1 GB dedicated GDDR5) AMD Enduro™ Technology
Maximum supported displays[28]	Up to 3 displays	Up to 3 displays
Controllers and HDDs[10]	500 GB up to 1 TB SATA (7200 rpm) 500 GB SATA SED (7200 rpm) 500 GB SATA FIPS 140-2 SED (5400 rpm) 128 GB up to 512 GB SATA SSD 180 GB up to 256 GB SATA SE SSD 256 GB HP Z Turbo Drive (PCIe SSD)	500 GB up to 1 TB SATA (7200 rpm) 500 GB SATA SED (7200 rpm) 500 GB SATA FIPS 140-2 SED (5400 rpm) 128 GB up to 512 GB SATA SSD 180 GB up to 256 GB SATA SE SSD 256 GB HP Z Turbo Drive (PCIe SSD)
Optical drives[23,24]	N/A	N/A
Communications	Ethernet: Intel® (I218-LM) Gigabit Network WLAN: Intel® Dual Band Wireless-AC 7265 802.11a/b/g/n (2x2) and Bluetooth®; Intel® Dual Band Wireless-AN 7265 802.11a/b/g/n (2x2) and Bluetooth; Intel® Dual Band Wireless-NB 7265 802.11a/b/g/n (2x2) Wi-Fi only; Intel® Dual Band Wireless-AC 3160 802.11a/b/g/n (1x1) and Bluetooth NFC: Integrated NFC with Antenna option WWAN: HP lt4211 LTE/EV-DO/HSPA+ Gobi 4G Module; HP lt4112 LTE/HSPA+ Gobi 4G Module; HP hs3110 HSPA+ Mobile Broadband Module	Ethernet: Intel® (I218-LM) Gigabit Network WLAN: Intel® Dual Band Wireless-AC 7265 802.11a/b/g/n (2x2) and Bluetooth®; Intel® Dual Band Wireless-AN 7265 802.11a/b/g/n (2x2) and Bluetooth; Intel® Dual Band Wireless-NB 7265 802.11a/b/g/n (2x2) Wi-Fi only; Intel® Dual Band Wireless-AC 3160 802.11a/b/g/n (1x1) and Bluetooth NFC: Integrated NFC with Antenna option WWAN: HP lt4211 LTE/EV-DO/HSPA+ Gobi 4G Module; HP lt4112 LTE/HSPA+ Gobi 4G Module; HP hs3110 HSPA+ Mobile Broadband Module

All feature are not available in all countries.

HP recommends Windows.

	HP ZBook 15 G2	HP ZBook 17 G2	HP DL380z Gen9
Operating systems	Windows 8.1 Pro 64-bit and other editions available[9] Windows 7 Professional[9] Ubuntu Linux®[14] FreeDOS	Windows 8.1 Pro 64-bit and other editions available[9] Windows 7 Professional[9] Ubuntu Linux®[14] FreeDOS	Windows and Linux® Client OS Windows 7 Professional 64-Bit DL380z FIO Software Kit HP DL380z Linux Installer Software Kit
Processor/chipset	Dual- and quad-core 4th generation refresh Intel® Core™ i5 and i7 processors[3] Mobile Intel® QM87 chipset	Dual- and quad-core 4th generation refresh Intel® Core™ i5 and i7 processors[3,25] Mobile Intel® QM87 chipset	Intel® Xeon® Processor E5 v3 Family up to 3.5 GHz, up to 18 cores[3]
Slots available/maximum memory/number of memory channels[21]	DDR3L SDRAM, 1600 MHz, 2 or 4 SODIMMs, up to 32 GB Two SODIMM slots (dual-core processor) or four SODIMM slots (quad-core processor) supporting dual-channel memory	DDR3L SDRAM, 1600 MHz, 2 or 4 SODIMMs, up to 32 GB Two SODIMM slots (dual-core processor) or four SODIMM slots (quad-core processor) supporting dual-channel memory	24 DIMM slots for up to 1.5 TB of DDR4 2133 MHz memory[11]
Expansion slots	1 ExpressCard/54 1 Secure Digital 1 Smart Card Reader 1 Thunderbolt™ 2[8]	1 ExpressCard/54 1 Secure Digital 1 Smart Card Reader 1 Thunderbolt™ 2[8]	Primary 3-slot riser: (2) PCIe Gen3 x16 slot (1) PCIe Gen3 x8 slot Secondary 3-slot riser: (2) PCIe Gen3 x16 slot (1) PCIe Gen3 x8 slot
Graphics	AMD FirePro™ M5100 NVIDIA® Quadro® K610M NVIDIA® Quadro® K1100M NVIDIA® Quadro® K2100M NVIDIA® Optimus® Technology supported[17] AMD Enduro™ Technology supported	AMD FirePro™ M6100 NVIDIA® Quadro® K1100M NVIDIA® Quadro® K2200M NVIDIA® Quadro® K3100M NVIDIA® Quadro® K4100M NVIDIA® Quadro® K5100M NVIDIA® Optimus® Technology supported[17] AMD Enduro™ Technology supported	NVIDIA GRID™ K1 NVIDIA GRID™ K2 NVIDIA® Quadro® K6000 NVIDIA® Quadro® K5200 NVIDIA® Quadro® K4200 NVIDIA® Quadro® K2200
Maximum supported displays[28]	Up to 5 displays	5 displays	12 displays
Controllers and HDDs[10]	500/750 GB, 1 TB 7200 rpm SMART SATA II 500 GB 7200 rpm SMART SATA II Self Encrypting Drive 500 GB 5400 rpm SMART SATA II Self Encrypting Drive FIPS 140-2 compliant 256 GB Z Turbo Drive (PCIe Solid State Drive) 128/180/240/256/512 GB SATA 6 Gb/s	500/750 GB, 1 TB 7200 rpm SMART SATA II 500 GB 7200 rpm SMART SATA II Self Encrypting Drive 500 GB 5400 rpm SMART SATA II Self Encrypting Drive FIPS 140-2 compliant 128/180/240/256/512 GB SATA 6 Gb/s 256 GB Z Turbo Drive (PCIe Solid State Drive)	Integrated 10-port SATA Controller, RAID 0,1,10, 5 supported: 6 ports, 6 Gb/s Available 12G SAS controller 16 TB max storage
Optical drives[23,24]	Fixed 9.5 mm SATA optical drive Blu-ray R/RE DVD+/-RW SuperMulti DL Drive, Blu-ray ROM DVD+/-RW SuperMulti DL Drive, DVD+/-RW SuperMulti DL Drive	Blu-ray R/RE DVD+/-RW SuperMulti DL Blu-ray ROM DVD+/-RW SuperMulti DL DVD+/-RW SuperMulti DL DVD-ROM	Optional slim optical drive: 16X DVD-ROM 16X DVD+/-RW DL
Communications	PCI Express 10/100/1000 Intel® NIC WLAN: Intel® Dual Band Wireless-NB 7260 802.11 a/b/g/n (2x2) Wi-Fi; Intel® Dual Band Wireless-AC 7260 802.11 a/b/g/n/ac (2x2) Wi-Fi and Bluetooth® 4.0 combo; Intel® Dual Band Wireless-AN 7260 802.11 a/b/g/n (2x2) Wi-Fi and Bluetooth 4.0 combo WWAN: HP hs3110 HSPA+ Mobile Module; HP lt4211 LTE/EV-DO/HSPA+ Gobi4G Module; HP lt4112 LTE/HSPA+ Mobile Broadband Module 2x2 antennas in LCD enclosure User upgradeable wireless WWAN (HSPA+ NGFF) 4 G LTE WWAN NGFF – select countries	PCI Express 10/100/1000 Intel® NIC WLAN: Intel® Dual Band Wireless-NB 7260 802.11 a/b/g/n (2x2) Wi-Fi; Intel® Dual Band Wireless-AC 7260 802.11 a/b/g/n/ac (2x2) Wi-Fi and Bluetooth® 4.0 combo; Intel® Dual Band Wireless-AN 7260 802.11 a/b/g/n (2x2) Wi-Fi and Bluetooth 4.0 combo WWAN: HP hs3110 HSPA+ Mobile Module; HP lt4211 LTE/EV-DO/HSPA+ Gobi4G Module; HP lt4112 LTE/HSPA+ Mobile Broadband Module 2x2 antennas in LCD enclosure User upgradeable wireless WWAN (HSPA+ NGFF) 4 G LTE WWAN NGFF – select countries	Integrated 4x 1Gb NIC

All feature are not available in all countries.

HP recommends Windows.

Notes

1. EPEAT® registered where applicable. EPEAT registration varies by country. See epeat.net for registration status by country.
2. Testing was not intended to demonstrate fitness for Department of Defense contracts requirements or for military use. Test results are not a guarantee of future performance under these test conditions.
3. Multi-Core is designed to improve performance of certain software products. Not all customers or software applications will necessarily benefit from use of this technology. 64-bit computing on Intel® architecture requires a computer system with a processor, chipset, BIOS, operating system, device drivers, and applications enabled for Intel® 64 architecture. Processors will not operate (including 32-bit operation) without an Intel® 64 architecture-enabled BIOS. Performance will vary depending on your hardware and software configurations. Intel's numbering is not a measurement of higher performance.
4. HP Performance Advisor requires Windows and an internet connection.
5. Remote Graphics Software requires Windows and internet access.
6. Sold as an optional or add on feature.
7. All specifications represent the typical specifications provided by HP's component manufacturers; actual performance may vary either higher or lower.
8. Thunderbolt™ 2 is available via an optional add-in card on Z1, Z230 SFF, Z230 Tower, Z440, Z640 and Z840 Workstations. It is standard on ZBook 15 and 17 Mobile Workstations. Thunderbolt cable and Thunderbolt device (sold separately) must be compatible with Windows. To determine whether your device is Thunderbolt Certified for Windows, see thunderbolttechnology.net/products.
9. Not all features are available in all editions or versions of Windows. Systems may require upgraded and/or separately purchased hardware, drivers and/or software to take full advantage of Windows functionality. See microsoft.com.
10. For hard drives, GB = 1 billion bytes. TB = 1 trillion bytes. Actual formatted capacity is less. Up to 16 GB of system disk is reserved for system recovery software (for Windows 7) and up to 30 GB is reserved for Windows 8.
11. Maximum memory capacities assume Windows 64-bit operating systems or Linux®. With Windows 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.
12. Support for external displays as a standard feature through integrated processor-based graphics is dependent upon the particular workstation configuration; the actual number of displays supported will vary. An optional graphics solution will be required for the support of additional displays. Additional cables required. HD (high-definition) content required to view HD images.
13. Not all configurations qualify as an Ultrabook™.
14. Not available with WWAN.
15. High-definition content is required to view high-definition images.
16. Requires optional docking and hybrid graphics enabled.
17. If configured with the HP DreamColor display, NVIDIA® Optimus® graphics will not be enabled.
18. PCIe Gen3 is new technology and it is expected that there will be limited cards available supporting this technology for a period of time.
19. 4K content required to view 4K resolution.
20. HP Care Packs are optional. Service levels and response times for HP Care Packs may vary depending on your geographic location. Restrictions and limitations apply. Service starts at date of hardware purchase. For details, visit hp.com/go/cpc.
21. Each processor supports up to 2 channels (HP Z230 Tower/HP Z230 SFF) of DDR3 memory or 4 channels (HP Z440/HP Z640/HP Z840) of DDR4 memory. To realise full performance at least 1 DIMM must be inserted into each channel. To get full 8 channel support, 2 processors MUST be installed. Actual memory speeds dependent on processor capability.
22. SATA hardware RAID is not supported on Linux® systems. The Linux® kernel, with built-in software RAID, provides excellent functionality and performance. It is a good alternative to hardware based RAID. Please visit h20000.www2.hp.com/bc/docs/support/SupportManual/c00060684/c00060684.pdf for RAID capabilities with Linux®.
23. Double Layer discs can store more data than single layer discs. However, double-layer discs burned with this drive may not be compatible with many existing single-layer DVD drives and players. The DVD-RAM cannot read or write to 2.6 GB Single Sided/5.2 GB Double Sided – Version 1.0 media.
24. With Blu-Ray, certain disc, digital connection, compatibility and/or performance issues may arise, and do not constitute defects in the product. Flawless playback on all systems is not guaranteed. In order for some Blu-ray titles to play, they may require a DVI or HDMI digital connection and your display may require HDCP support. HD-DVD movies cannot be played.
25. Intel® Turbo Boost technology requires a PC with a processor with Intel Turbo Boost capability. Intel Turbo Boost performance varies depending on hardware, software, and overall system configuration.
26. The term "10/100/1000" or "Gigabit" Ethernet indicates compatibility with IEEE standard 802.3ab for Gigabit Ethernet, and does not connote actual operating speed of 1 Gb/s. For high-speed transmission, connection to a Gigabit Ethernet server and network infrastructure is required.
27. The video card must be capable of supporting 3840 x 2160 at 60 Hz to drive the monitor at the Preferred Mode.
28. Number of supported displays varies by configuration.

For more information visit
hp.com/zworkstations

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4AA4-7665EEE, February 2015